

Chapter 8F: The Lower East Coast Regional Water Supply Plan

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INTRODUCTION

The Lower East Coast (LEC) Regional Water Supply Plan provides a blueprint to help meet the water resource needs of South Florida through the year 2020. Development of the Plan began in 1992, when the South Florida Water Management District (District or SFWMD), under the authority of state law, initiated an eight-year study of future water needs.

Projections of future population growth for the area indicate almost seven million residents by 2020, with the majority of the population living along the coastal areas. This population growth will create larger demands for both potable and irrigation water. In addition, environmental demands call for significant increases in water supply deliveries to sustain and restore the natural systems of South Florida. The Plan was adopted by the Governing Board of the District in May 2000.

2002 LEC PLAN HIGHLIGHTS

In 2002, the District's Water Supply Department began the implementation of several projects (listed below) identified in the LEC Plan. These projects complement the Comprehensive Everglades Restoration Plan (CERP) by increasing the amount of water available for urban users, agriculture and the natural system and are necessary to meet the needs of the Everglades and the future population of South Florida. The LEC Plan includes additional water resource and water supply projects and related studies and rule development that may be needed to help meet the future needs of the region. Implementation highlights include:

- Completed the Northern Palm Beach County Comprehensive Water Management Plan and began plan implementation with widening of the M Canal and design / permitting of the G-160 Loxahatchee Slough Structure.
- Construction nearing completion on the Eastern Hillsboro Regional ASR project.
- Drafted proposed rule for St. Lucie Estuary minimum flows and levels and held public workshops to finalize rule language for adoption in December 2002.
- Revised draft Loxahatchee River minimum flows and levels document and held public workshops.
- Began rule development for "B list" consumptive use permitting rules
- Conducted public workshops on proposed revisions to rules concerning consumptive use permitting and water shortage plan.

- Initiated Water Conservation Incentive program partnerships with Palm Beach, Broward, and Miami-Dade counties.
- Funded two Mobile Irrigation Labs that evaluated 250 irrigation systems that result in annual savings of approximately 500 million gallons of water.
- Funded LEC feasibility analysis and master plan for a regional reclaimed water system in central and northern Palm Beach County.
- Completed feasibility report on the reverse osmosis (RO) treatment of seawater when co-located with power plants. Based upon the findings, Lee County Utilities and Florida Power & Light (FPL) are investigating constructing a RO facility at FPL's Fort Myers power plant.

CERP IMPLEMENTATION AND ITS EFFECTS ON LEC PLAN IMPLEMENTATION

A critical part of the LEC Plan is the water resource development projects identified in CERP (discussed in Chapter 7 of this report). The Water Supply Department reviewed the recent change in the CERP implementation schedule related to the completion of these projects. From this assessment of CERP-related project schedules, the Water Supply Department identified potential concerns regarding water supply availability in the 2010 – 2020 time frame, primarily due to rescheduling aquifer storage and recovery (ASR) implementation.

Incremental five-year modeling of the new schedule for the CERP will take place in 2003. The incremental modeling of simulated water-availability predictions will provide information for the water reservation process, alternative resource development projects and interim performance goals, as required by the Water Resources Development Act of 2000 (WRDA 2000).

As the LEC Plan implementation continues, the Water Supply Department will continue to take into consideration the schedule changes in CERP and the implications those changes will have on the ability to achieve hydrologic restoration targets for the Everglades and the human water needs of the region. The update for the LEC Plan, scheduled to begin in 2003, will cover the period 2005 through 2025. The update will incorporate the revised schedules and operational plans for CERP.

RESERVATION OF WATER FOR THE ENVIRONMENT AND ASSURANCES FOR EXISTING LEGAL SOURCES

Implementation of CERP must be consistent with both state laws and WRDA 2000. In general, WRDA 2000 requires quantification and protection of existing legal sources of water and also requires the quantification and protection of water made available for natural systems by CERP through the adoption of water reservations under state law. As a local sponsor, the District is required to participate in the development of CERP project components to ensure that the component meets all legal responsibilities under Chapter 373, F.S., for water supply, water quality, flood protection, threatened and endangered species and other water for natural resource protection. State law requires the identification of water from the increase in human and natural system water supplies resulting from the project components prior to receiving state funds for CERP project construction and requires the adoption of water reservations Chapter 373, F.S.

The reservations of water for the natural system will be made by the District pursuant to state law. The District will accomplish the reservations through the rule making authority of the Governing Board. The state law on water reservations, in Section 373.223(4), F.S., provides:

"The governing board or the department, by regulation, may reserve from use by permit applicants, water in such locations and quantities, and for such seasons of the year, as in its judgment may be required for the protection of fish and wildlife or the public health and safety. Such reservations shall be subject to periodic review and revision in the light of changed conditions. However, all presently existing legal uses of water shall be protected so long as such use is not contrary to the public interest."

When water is reserved, the District cannot allocate it to consumptive use permittees. Water reserved for the natural system is for the "protection of fish and wildlife". However, water can also be reserved for public health and safety. Reservations are subject to periodic review based on changed conditions, such as the changes that will occur in the Central and Southern Florida Project, as CERP projects become operational. This provides flexibility to account for changes in implementation strategies and contingency plans during the life of the project.

In early 2002, an interagency team (Water Reservation Evaluation Team) was formed to outline a process for identifying and protecting water made available through implementation of CERP for the natural system and human uses, consistent with state law and WRDA 2000. This team effort is on-going and consists of representatives from the following agencies: South Florida Water Management District, Department of Interior, Everglades National Park, U.S. Army Corp of Engineers, Florida Department of Environmental Protection, and U.S. Fish & Wildlife Service. In March 2002 a process for identifying and reserving the water made available was presented to the SFWMD Governing Board. Based upon that meeting, a white paper was prepared and distributed for public review and comments.